Remarks

Applicant respectfully requests reconsideration of this application as amended. Pursuant to the conversation with the Examiner on August 30, 2005, the present amendments are submitted. Claims 1-6, 10-13, and 15 have been amended. No claims have been cancelled or added. Therefore, claims 1-6 and 10-17 are presented for examination. In addition, the specification has been amended to correct minor informalities.

Specification

The specification has been objected to because of the particular use of the trademark JAVA. Applicant submits that the specification has been amended by replacing each occurrence of "Java" with "JAVA programming language." Therefore, applicant respectfully requests the objection be withdrawn.

35 U.S.C. §112 Rejection

Claims 1-6 and 10-17 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, the term "accurate" in the claims is a relative term that renders claims 1-6 and 10-17 indefinite. The claims have been amended to remove any reference to the term "accurate." Therefore, applicant respectfully requests the 35 U.S.C. §112 rejection be withdrawn.

35 U.S.C. §101 Rejection

Claims 1-6 and 10-12 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Claims 1 and 10 have been amended to recite a "computer-implemented method" as suggested by the Examiner. Therefore, applicant respectfully requests the 35 U.S.C. §101 rejection be withdrawn.

35 U.S.C. §102(b) Rejection

Claims 1, 2, 4, 5, 10-14, 16, and 17 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kukol (U.S. Patent No. 5,628,016). Applicant submits that the present claims are patentable over Kukol.

Kukol discloses a development system having a compiler that allows programmers and software developers to more efficiently develop compiled applications with runtime exception handling support. The system registers exception handling information (e.g., Exception Registration Record (ERR)) with the underlying operating system. The method is implemented so that the ERR resides at the bottom of a stack so that the information is positioned at one end of the stack during execution of the function. In this manner, the method allows the system to readily and efficiently register an exception handler with the operating system by executing a series of "push" instructions for pushing data members of the ERR onto the stack. Upon completion of the execution of the function, the record may be unhooked from the handler chain on the stack by executing a series of "pop" instructions. (Kukol at col. 6, ln. 41-col. 7, ln.9.)

Claim 1, as amended, recites:

> For a computer-executable program that operates on a
> data structure, where the data structure must have a required

state at selected program points, a computer-implemented
method of transforming said program comprising:

analyzing the program to determine the state of said data
structure at said selected program points;

partitioning said determined state at each said program
point into components that may each be set separately;

determining operations to be inserted into the program in
order to set each component of the state at each selected
program point based on flow equations for an up-safety and a
down-safety of setting the state at each selected program
point, wherein the operations assure that the data structure
will be in the required state at the selected program points;
and

placing said operations to eliminate partial redundancies
of said operations.

Applicant submits that Kukol does not disclose or suggest determining operations to

be inserted into a program in order to set each component of a state at each selected program

point based on flow equations for an up-safety and a down-safety of setting the state at each

selected program point, as recited by claim 1. Applicant can find no disclosure or suggestion

of such a feature anywhere in Kukol. Therefore, claim 1 is patentable over Kukol.

Claims 2-6 depend from claim 1 and include additional limitations. Therefore, claims

2-6 are also patentable over Kukol.

Claims 10 and 13 also recite, in part, determining operations to be inserted into a

program in order to set each component of a state at each selected program point based on

flow equations for an up-safety and a down-safety of setting the state at each selected

program point. As discussed above, Kukol does not disclose or suggest such a feature.

Therefore, claims 10 and 13 are patentable over Kukol for the reasons discussed above with

respect to claim 1. Claims 11 and 12 depend from claim 10 and claims 14-17 depend from

claim 13. As dependent claims necessarily include the limitations of their independent t

claims, claims 11, 12, and 14-17 are also patentable over Kukol.

35 U.S.C. §103(a) Rejection

Claims 3, 6 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over

Kukol (U.S. Patent No. 5,628,016) in view of Gordon et al. (U.S. Patent No. 6,507,805).

Applicant submits that the present claims are patentable over Kukol even in view of Gordon.

Gordon discloses a method and system for compensation for instrumentation

overhead in trace data. (Gordon at Abstract.) Claims 3 and 6 depend from independent

claim 1, and claim 15 depends from independent claim 13. As discussed above, Kukol does

not disclose or suggest <u>determining operations to be inserted into a program in order to set

each component of a state at each selected program point based on flow equations for an up-

safety and a down-safety of setting the state at each selected program point</u>, as recited by

claims 1 and 13. Furthermore, Gordon also does not disclose or suggest such a feature. As

dependent claims necessarily include the limitations of their independent claims, Kukol and

Gordon, individually or in combination, do not disclose or suggest the features of claims 3, 5,

and 15. Therefore, claims 3, 6, and 15 are patentable over Kukol in view of Gordon.

Applicant respectfully submits that the rejections have been overcome and that the

claims are in condition for allowance. Accordingly, applicant respectfully requests the

rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.
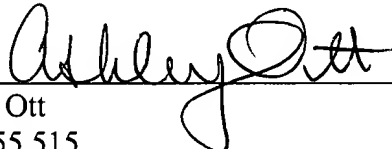
Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: August 31, 2005

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